

NOMENCLATURAL NOTES ON MONOCOTS

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In the course of preparing a flora of the vascular plants of Michigan, I have accumulated considerable data relating to the names of the native and introduced species of (chiefly) the Great Lakes region. It seems well to present these data in advance of the flora and with more documentation than will be appropriate therein. Rather than publish a diverse series of short notes, cluttering the literature with a paragraph or two each time a discovery arose, I have preferred to present such notes at one time for a major group of plants (in this case, the Monocotyledones). This report may then cause less pain to bibliographers and may even be more useful as a reference list for other students of the flora.

With the latter aim in mind, brief notes have been included on certain names for which good arguments have been published by others in the past — but too often and unjustifiably ignored. Thus, the present listing includes, in addition to some new combinations, most if not all of those instances where I consider the name of a local monocot in current manuals or monographs to require some clarification or replacement for largely nomenclatural (as distinguished from taxonomic) reasons.

Having previously discussed at some length (Taxon 14: 154-160. 1965) my interpretation of Article 46 of the International Code of Botanical Nomenclature and its plain requirement that the author *publishing* a name (i. e., supplying the description) be invariably cited (whether or not one takes the option of citing in addition a non-publishing author), I do not list below those instances in which only a change in author citation seems required, unless there are special reasons for discussing the case.

The following list is organized under names, in boldface type, which I feel are correct, although a few of them are ones which for taxonomic reasons I choose not to employ at present. Comments will be welcomed on overlooked publica-

tions, names, or interpretations which would alter the conclusions here set forth.

ACKNOWLEDGMENTS

Publications not available in Ann Arbor have been sought during several visits to the Missouri Botanical Garden, whose librarian, Dr. George Van Schaack, has been ever helpful. Every reference cited below has been examined by me, except for two specifically mentioned; not all references are cited, especially when a particular case has been thoroughly discussed and documented by others to whose work attention is called.

For help on certain specific points, as acknowledged in the text or footnotes, I am indebted to F. J. Hermann, B. Peterson, A. E. Schuyler, and W. T. Stearn. Over the years Dr. Rogers McVaugh has patiently saved me from many (doubtless not all!) nomenclatural blunders and guided me in application of the Code; he has kindly read the manuscript of the present paper but is, of course, not to be blamed for any errors or rashness which it may yet contain.

SPARGANIACEAE

Sparganium chlorocarpum Rydb. f. *acaule* (Beeby) E. G. Voss, *comb. nov.*

S. simplex var. *acaule* Beeby in Macoun, *Cat. Canad. Pl.* 2(5): 367. 1890.

The extreme state of this species deserves, at most, recognition in formal rank.

JUNCAGINACEAE

Triglochin maritimum L.

Triglochin palustre L.

These are the only two species described by Linnaeus (*Sp. Pl.*, pp. 338, 339. 1753). Both epithets were given neuter form by him, the gender in accord with most Greek usage of the substantive adopted as the generic name. (*Glochis*, in contrast to *triglochin*, is chiefly feminine.) Since Linnaeus consistently employed the classical Greek gender for his genus, *Triglochin*, there seems to be no rea-

son at all, under Recommendation 73A(1) to alter it to feminine, as is often done in American publications (but not, e.g., in the treatment by Löve & Löve, Nat. Canad. 85: 156-165. 1958).

HYDROCHARITACEAE

Elodea Michx.

As has been carefully pointed out by Shinnars (Rhodora 58: 162. 1956), *Elodea* is correct without the conservation once proposed for it. (Cf. Art. 75 examples, where *Elodea* is cited as a different name not likely to be confused with *Elodes* Adans. Not only was the latter misspelled *Elodea* by Jussieu (Gen. Pl., p. 255. 1789) but it was also given by him in the synonymy of *Hypericum*, which would give it no nomenclatural standing even if it were different.) Continued use of *Anacharis* instead of *Elodea* is incorrect.

GRAMINEAE

Triticeae Dumort.

As has been fully documented by the synonymy of Pilger (Bot. Jahrb. 76: 312. 1954), briefly summarized by Bowden (Canad. Jour. Bot. 37: 659. 1959), the tribal name Triticeae was validly published by Dumortier in 1823 (Obs. Gram. Belg., p. 82). Thus it has priority over Hordeae Benth. (Jour. Linn. Soc. Bot. 19: 31. 1881).

Agropyron dasystachyum (Hook.) Scribn. var. *psammophilum* (Gillett & Senn) E. G. Voss, *comb. nov.*

A. psammophilum Gillett & Senn. Canad. Jour. Bot. 39: 1170. 1961.

Typical var. *dasystachyum* of the plains tends to have the foliage less glaucous, the lemmas less villous, and the glumes less attenuate than does this endemic variety of the Great Lakes shores (cf. Guire & Voss, Mich. Bot. 2: 107-108. 1963). However, the differences do not seem to be as clearcut as implied by Gillett and Senn in describing the Great Lakes plant as a new species, and I prefer to consider the latter as a local variety in many ways paralleling *Calamovilfa longifolia* var. *magna* Scribn. & Merrill.

Agrostis stolonifera L. var. *palustris* (Huds.) Farw.

This combination by Farwell (Rep. Mich. Acad. 21: 351.

1920) should have been employed by Gleason (Ill. Fl. 1: 166. 1952) rather than var. *compacta* Hartman (Skand. Fl. Handb., ed. 4, p. 24. 1843), since the former is based on the oldest epithet in varietal rank (*A. polymorpha* [var.] *palustris* (Huds.) Huds., Fl. Angl., ed. 2, p. 32. 1778).

Since *Agrostis alba* L. has been shown by Philipson (Jour. Linn. Soc. Bot. 51: 91. 1937) to be based on a species of *Poa*, the familiar "redtop" grass may be called *A. stolonifera* var. *major* (Gaud.) Farw., as Gleason does in a conservative treatment, or *A. gigantea* Roth, as does Philipson (op. cit., p. 90). (The name *A. palustris* has sometimes been misapplied to this species.) Fernald's treatment of this group in Man., ed. 8, is unique and cannot be correlated with other works.

Agrostis hyemalis (Walt.) BSP. var. *tenuis* (Tuck.) Gleason f. *setigera* (Fern.) E. G. Voss, *comb. nov.*

A. scabra var. *septentrionalis* Fern. f. *setigera* Fern. Rhodora 35: 210. 1933.

A. scabra [var. *scabra*] f. *tuckermani* Fern. *Ibid.* 207. 1933.

Errors and omissions in the synonymy of *Agrostis scabra* in Hitchcock's Manual of Grasses (ed. 2, pp. 807, 808. 1951) help to confuse the nomenclatural picture, especially if one chooses to follow Gleason in considering this plant to represent only a variety of *A. hyemalis*.

From the synonymy in Man. Gr., one might conclude that Gleason did not transfer the oldest available epithet in varietal rank, for "*Agrostis michauxii* var. *laxiflora* A. Gray, N. Amer. Gram. and Cyp. 1: 17. 1834. Based on *Trichodium laxiflorum* Michx." antedates Tuckerman's epithet by nine years. However, Michaux's binomial (Fl. Bor.-Am. 1: 42. 1803) is illegitimate, as he lists *Cornucopiae hyemalis* (the basionym of *A. hyemalis*) as a synonym. Michaux's superfluous name (Art. 63) is thus a synonym of *A. hyemalis* and not (if two species are maintained) of *A. scabra*, as listed in Man. Gr. and in Ind. Gr. Sp. (Chase & Niles, 1962).

Under Art. 72, Gray's varietal name is to be treated "as new," and not as a recombination of Michaux's illegitimate

epithet. Gray¹ provided no original description but cited the Michaux reference and figure, which is probably *A. scabra*. One might be able to interpret Gray's name as applying to the *A. scabra* concept; on the other hand, in the absence of a clear precedent in the Code, I consider it to fall in the same synonymy as Michaux's name and thus avoid the necessity of making yet another new combination. (Michaux's description is not clearly referable to either species, and because of his synonymy his type is the same as the type of *A. hyemalis* according to the controversial but often useful Art. 7, Note 4. Since the application of Michaux's name is governed by its type, and since Gray's name is validated only by reference to Michaux, Gray's type can be considered the same.)

If all of "*A. scabra*" is treated as a variety of *A. hyemalis* (as var. *tenuis*), then a single epithet is in order for the awned form. Of Fernald's two available epithets of the same date, I choose f. *setigera* as being more descriptive. Neither Fernald's var. *septentrionalis* nor f. *setigera* is listed in the synonymy of any taxon in Man. Gr. (although both are in Ind. Gr. Sp., 1962).

***Andropogon gerardii* Vitman**

Article 73, Note 3, of the Code states that "wrong use of the terminations *i*, *ii*, . . . is treated as an orthographic error," but this does not completely solve the problem of what constitutes "wrong use." Rec. 73C states that if a personal name "is already Latin or Greek, the appropriate Latin genitive should be used." *Andropogon gerardi* has been defended on the grounds that there is a Latin form *gerardus*. But there is a Latin form for a great many names, and Rec. 73C does not refer to names which have a Latin form (i. e., have ever been Latinized by anyone) but to names which are "already Latin." I believe its intent is merely to avoid such barbarisms as *linnaeusii*. If one is basing a genitive epithet on the already-Latin

¹I am indebted to Dr. A. E. Schuyler, of the Academy of Natural Sciences of Philadelphia, for examining for me a label from Gray's *exsiccata*. (For the significance of Gray's Gram. & Cyp., see Rickett & Gilly, Bull. Torrey Bot. Club. 69: 461-466. 1942.)

gerardus, then of course it must be *gerardi*, or at least not *gerardusii*; but if one bases it simply on the French name of Gérard, whom this plant honors, then it seems to me that Art. 73 prefers, for consistency, *gerardii*.

Aristida necopina Shinnars

According to Shinnars (Rhodora 56: 30. 1954) this is the plant which, in the Midwest, has been referred to *A. intermedia* Scribn. & Ball; true *A. intermedia* is *A. longispica* Poir. var. *geniculata* (Raf.) Fern.

Bromus pubescens Willd. f. **glabriflorus** (Wieg.) E. G. Voss, *comb. nov.*

B. purgans L. f. *glabriflorus* Wiegand. Rhodora 24: 92. 1922.

Wagnon (Rhodora 52: 213-215. 1950; Brittonia 7: 455. 1952) has indicated that the type of *B. purgans* L. belongs to the species long called *B. latiglumis* (Shear) Hitchcock, so that the older name supplants the latter. The plant long known (erroneously) as *B. purgans* then becomes *B. pubescens* Muhl. *ex* Willd. The above transfer is therefore necessary to make available a name for the rare form with the lemmas and paleas all completely glabrous.

Deschampsia cespitosa (L.) Beauv.

The epithet was originally spelled *cespitosa* by Linnaeus (Sp. Pl., p. 64. 1753). While this may be less preferable Latin than *caespitosa*, it was clearly not a typographical error (cf. Philos. Bot., No. 274, and other usage by Linnaeus), and alteration of the original spelling is unjustified.

Echinochloa muricata (Beauv.) Fern.

Echinochloa crusgalli (L.) Beauv. var. **frumentacea** (Link) W. F. Wight

The case for the name and author citations of *E. muricata* was adequately presented by Fairbrothers and Reeder (Rhodora 58: 48 & 331-332, respectively. 1956.) Since *Panicum muricatum* Michx. is illegitimate, the basionym (under Art. 72) becomes *Setaria muricata* Beauv. In making the combination in *Echinochloa* (Rhodora 17: 106. 1915), Fernald cited the Michaux reference, not Beauvois. Acceptance of Fernald as author of the combination seems to be a good illustration of Art. 33, Note 2 ("Bibliographic errors of citation do not invalidate the publication of a new combination.") — even though the "error" in this case is citing the

wrong author and hence place of publication of the basionym.

A similar situation involves the epithet *frumentacea*. *Panicum frumentaceum* Roxb. (Fl. Ind. 1: 307. 1820), usually cited as the basionym, is an illegitimate homonym of *P. frumentaceum* Salisb. (Prod. Stirp. Hort. Chap. All., p. 18. 1796), which was itself an illegitimate substitute name for *Holcus sorghum* L. (cited as "Linn. Sp. Pl. ed. 2. p. 1404"). Therefore, *Echinochloa frumentacea* Link (Hort. Reg. Bot. Berol. 1: 204. 1827) is, under Art. 72, treated "as new," and becomes the basionym of *E. crusgalli* var. *frumentacea*.

Eragrostis cilianensis (All.) E. Mosher

Shinners (Rhodora 56: 26, 27. 1954) discussed the nomenclature of this species, tentatively attributing the combination to Hitchcock (whose 1919 usage is not a "nomen nudum" as termed by Shinners, for no description is required for a new combination and even citation of the basionym was not required prior to 1953 [Art. 33]). Shinners cautiously pointed out that it was possible that some author published the combination prior to Hitchcock. The name was used in Mosher's Grasses of Illinois (Ill. Agr. Exp. Sta. Bull. 205: 381. 1918) — but Shinners' warning still stands: there may be yet a prior use.

Festuca pratensis Huds.

This name has been used for some time in Europe (the native home of the species) for what many manuals continue to call *F. elatior* L. (Sp. Pl., p. 75. 1753.), a name which may be rejected under Art. 69 as a nomen confusum; otherwise, it supplants *F. arundinacea* Schreb. (cf. Dandy, List Brit. Vasc. Pl., p. 157. 1958).

Koeleria macrantha (Ledeb.) Spreng.

Shinners (Rhodora 58: 94. 1956) has pointed out not only that *K. cristata* Pers. is an illegitimate name but also that it applies to a European species, so that our American plant must apparently be identified as *K. macrantha*.

Panicum commutatum var. *ashei* Fern.

Not *P. ashei* Pearson in Ashe. Jour. Elisha Mitchell Sci. Soc. 15: 35. 1898.

Panicum ashei Pearson was originally published as a nomen novum for *P. commutatum* Schult. var. *minor* Vasey.² The reference cited is Contr. U. S. Nat. Herb. 3: 32 (1892) and not the original place of publication of var. *minor* (U. S. D. A. Bot. Div. Bull. 8: 34. 1889). However, Vasey's description is identical in both places, and bibliographic errors of citation do not invalidate the publication of a new combination (Art. 33, Note 2) — or, presumably, of a nomen novum. *Panicum ashei* and *P. commutatum* var. *minus* (as 'minor') are synonymous. Since the latter is apparently not taxonomically distinct from typical *P. commutatum* (cf. synonymy of Hitchcock and Chase, and implication in Fernald, Rhodora 36: 83. 1934), *P. ashei* also belongs in the synonymy of *P. commutatum*.

Fernald cited *P. ashei* Pearson as basionym for his new combination (loc. cit.), but definitely stated "excluding synonym." Fernald's varietal name must be treated as new, dating from 1934, validated by reference to the description and citations by Pearson in Ashe but specifically excluding the cited synonym which unfortunately makes the binomial *P. ashei* Pearson apply to a different plant from the varietal name *P. commutatum* var. *ashei* Fernald. Those who believe that the weakly distinguished var. *ashei* should be accorded specific rank will have to provide a new name for it. (The type of *P. ashei*, as a nom. nov., must be the type of *P. commutatum* var. *minus*. Hitchcock & Chase's designation of Ashe's 1898 collection from Ithaca as a type is irrelevant.)

²Hitchcock and Chase (N. Am. Sp. Panicum, Contr. U. S. Nat. Herb. 15: 301. 1919) argue that the synonym is cited in error and that *P. ashei*, as a "sp. nov." was not really intended as a nom. nov. However, the phrase following the listing of Vasey's name, "Not *P. capillare* var. *minus* Muhl. (1817)" indicates that Pearson (or Ashe) intentionally avoided creating a homonym of *P. minus* (Muhl.) Nash [Bull. Torrey Bot. Club 22: 421. 1895]. Since Vasey's varietal epithet could thus not be raised to specific rank, a new name was required. Note, too, that no type was designated, whereas for truly new species in the same paper Ashe usually designated a type when more than one of his collections was cited.

Panicum depauperatum Muhl. var. **involutum** (Torr.) Wood

P. depauperatum var. *psilophyllum* Fern.

It is not clear why Fernald (*Rhodora* 23: 193. 1921) found it necessary to provide a new name for "the common plant with sheaths sparsely pilose or quite glabrous" since Hitchcock and Chase (*N. Am. Sp. Panicum*, *Contr. U. S. Nat. Herb.* 15: 151. 1910) had long previously noted that the type of *P. involutum* Torrey (*Fl. No. & Mid. States*, p. 144. 1824) had "sparsely pilose sheaths." Hence, Fernald's name is considerably antedated by β *involutum* (Torr.) Wood (*Class-book*, ed. 1860, p. 786).

Panicum rigidulum Nees

P. agrostoides Spreng.

As was pointed out long ago by Hitchcock and Chase (*N. Am. Sp. Panicum*, *Contr. U. S. Nat. Herb.* 15: 100. 1910) Sprengel (*Pl. Pugill.* 2: 4. 1815) cited *P. agrostidi-forme* Lam. as a synonym of his proposed new *P. agrostoides*. Hence, under Art. 63, Sprengel's name is illegitimate as superfluous when published, for by citing Lamarck's name he apparently intended to circumscribe his species so as to include Lamarck's plant — even though Sprengel did in fact have something new.

As was also pointed out by Hitchcock and Chase (*loc. cit.*), *P. rigidulum* Bosc. *ex* Spreng. (*Syst. Veg.* 1: 320. 1825) is a name merely published in synonymy (of *P. anceps* Michx.). Thus the 1825 name is invalid and has no status under the Code (Art. 12); it is not illegitimate. Hence, the later described *P. rigidulum* Bosc. *ex* Nees (*Agrost. Brasil.* [= *Mart., Fl. Brasil.* 2(1)], p. 163. 1829) is evidently the earliest correct name for this plant. (It is of interest to note that as long ago as 1897 (*U. S. D. A. Div. Agrost. Bull.* 4: 21), Holm reported that the specimen of *P. agrostoides* in Willdenow's herbarium has "*P. rigidulum* Bosc." added by Willdenow on the label.)

Paspalum muhlenbergii Nash

Although described by Nash (*Britton, Man.*, p. 75. 1901) as a species distinct from "*Paspalum pubescens* Muhl.," this was not maintained as a distinct entity by Mrs. Chase (*N. Am. Sp. Paspalum*, *Contr. U. S. Nat. Herb.* 28: 83. 1929)

or by Fernald (Rhodora 36: 20. 1934). Mrs. Chase used the name *P. pubescens* Muhl. both in her monograph and in the revised edition of the Manual of Grasses (as had Hitchcock in the original edition), in spite of the fact that in the monograph (loc. cit.) she herself stated: "Willdenow cites *P. ciliatifolium* Michx. as a synonym."

Thus, *Paspalum pubescens* Muhl. ex Willd. (Enum. Plant. Hort. Reg. Bot. Berol., p. 89. 1809) is an illegitimate name, superfluous when published (Art. 63). Not only does Willdenow quote Michaux's description fully (after his own), but "Habitat in Carolina" is also apparently taken from Michaux. Although the type sheet of *P. ciliatifolium* Michx. (Fl. Bor.-Am. 1: 44. 1803) is mixed (Chase, op. cit., p. 86), Willdenow gives no evidence of intentionally basing his species on one of the included elements. Whatever specimens Muhlenberg or Willdenow may have had before them, they are irrelevant to the nomenclatural situation of proposing what is, in effect, a substitute name.

If one does not follow Fernald in treating these plants as *P. ciliatifolium* var. *muhlenbergii* (Nash) Fern., they must be called *P. muhlenbergii* Nash. *P. pubescens* Muhl. ex Willd. must be cited in the synonymy of *P. ciliatifolium* Michx.

***Phalaris arundinacea* L. f. *variegata* (Parnell) Druce**

P. arundinacea f. *picta* (L.) Asch. & Graebn.

The combination by Druce (Fl. Berks., p. 556. 1897) was clearly based on *P. arundinacea* var. *variegata* Parnell (Gr. Brit., p. 188. 1845). The latter was evidently intended as a new taxon (no prior authors are cited in the manner employed by Parnell for most other taxa), although the variety is undoubtedly the same as *Calamagrostis variegata* Withering (Bot. Arr. Brit. Pl., ed. 3, 2: 124. 1796). Since Withering cited *P. arundinacea* L., his binomial is superfluous anyway, and could not serve as basionym for Parnell's name, which in any event, therefore, is treated as new — although it was taxonomically unnecessary in view of *P. arundinacea* var. *picta* L. (Sp. Pl., p. 55. 1753).

The later formal combination by Ascherson and Graebner (Syn. Mitt.-Eur. Fl. 2: 24. 1898), based on *P. arundinacea*

[var.] *picta* L. (the page number they cite [80] is that of Sp. Pl., ed. 2, although said to be ed. 1), is taken up by Anderson in his recent monograph of *Phalaris* (Iowa State Jour. Sci. 36: 38. 1961). Neither Anderson nor Chase and Niles (Ind. Gr. Sp., 1962) nor Man. Gr. list f. *variegata*, and the latter two do not list f. *picta*. Hence, it seems valuable to summarize the nomenclature. The attractive "Ribbon Grass" may be called *P. arundinacea* var. *picta* L. or f. *variegata* (Parnell) Druce — but not f. *picta* nor var. *variegata* (unless, of course, one makes the taxonomic judgment that there exist two different taxa of ribbon grass).

Puccinellia fernaldii (Hitchc.) E. G. Voss, *comb. nov.*

Glyceria pallida (Torr.) Trin. var. *fernaldis* Hitchcock, Rhodora 8: 211. 1906.

Glyceria fernaldis (Hitchc.) St. John, Rhodora 19: 76. 1917.

Torreyochloa fernaldis (Hitchc.) Church, Am. Jour. Bot. 36: 164. 1949.

Torreyochloa pallida (Torr.) Church ssp. *pallida* var. *fernaldis* (Hitchc). Dore, Canad. Jour. Bot. 42: 874. 1964.

This combination is proposed with some reluctance, but it is necessary if one follows the suggestion of Clausen (Rhodora 54: 42-45. 1952) that *Torreyochloa* Church (the *Glyceria pallida* group) be treated as a section of *Puccinellia*. In defending *Torreyochloa*, Church (Rhodora 54: 187-200. 1952) questioned the recognition of *fernaldis* at specific rank, and Clausen evidently had doubts on this point also. Since in Michigan it is morphologically and geographically distinct from *P. pallida* (Torr.) Clausen, I recognize it, at least at present.

Setaria glauca (L.) Beauv.

Reeder (Rhodora 53: 27-30. 1951) discussed this name under the title: "Setaria lutescens an Untenable Name." Rominger in his recent monograph of *Setaria* (Ill. Biol. Monogr. No. 29, pp. 97-98. 1962) rehashes the old arguments against *S. glauca*, rejects Reeder's conclusion with a backhanded compliment (referring to it as a strong argument and nowhere directly refuting it), and ignores completely Reeder's assertion that the assumed basionym, *Panicum lutescens* Weigel, cannot in any event be accepted

since it is invalid under Art. 33, which requires for valid publication that an author definitely indicate that an epithet is to be used in a particular combination.

Weigel's publication was first questioned by Weatherby, et al. (*Rhodora* 31: 109. 1929), who stated that he "nowhere directly makes the combination *Panicum lutescens*." Exactly the same assertion ("nowhere") is made by Reeder. Unfortunately for this argument, "nowhere" is not true. In the explanation of his plates, Weigel (*Obs. Bot.*, 1772) does indicate that on Plate II, Fig. 1 is "of *Panicum lutescens*" ["Panici lutescentis"] and Fig. 2 is of *Panicum virescens*. With this evidence of his intent in proposing (p. 20) the epithets, I think we must accept them as validly published binomials. Otherwise, for those who are convinced that *S. glauca* is incorrect, the basionym must presumably become, under Art. 72, *Chaetochloa lutescens* Stuntz (*U. S. D. A. Bur. Pl. Ind. Inv. Seeds & Pl. Imp.* 31: 86. 1914 — incorrectly cited as p. 84 by Weatherby and as p. 83 by Reeder).

Sorghum bicolor (L.) Moench

S. vulgare Persoon

A clear summary of this rather clearcut but often ignored case has been given by Shinnars (*Baileya* 4: 141-142. 1956). *Sorghum bicolor* was specified as the type of the genus by Clayton in his proposal for conservation of *Sorghum* (*Taxon* 10: 242, 243. 1961). To the usual synonymy of this species (e.g., Snowden, *Cultivated Races of Sorghum*, p. 166. 1936) should be added *Panicum frumentaceum* Salisb. (cf. under *Echinochloa*, above).

Spartina pectinata Link var. *suttiei* (Farwell) Fernald

It is extremely doubtful whether this variety has any taxonomic significance whatsoever, and it is mentioned here only to call attention to a slight correction necessary in the indication of type locality in *Man. Gr.* (rev. ed., p. 959. 1951) and in the *Ind. Gr. Sp.* (Chase & Niles, 1962). These sources give "Orchard Lake, Mich., Suttie" in designating the type. However, in describing *S. michauxiana* var. *suttiei*, Farwell (*Rep. Mich. Acad.* 21: 352. 1920) said: "Island Lake, July 16, 1905, No. 1487a. Also Dr. George

Suttie, Orchard Lake, July 29, 1892, and Waterford, August 27, 1893." Priority in this listing is given to Island Lake, and further confirmation is Farwell's specimen No. 1487a, marked "Type" by him (BLH), as pointed out by McVaugh, Cain, & Hagenah (Farwelliana, Cranbrook Inst. Sci. Bull. 34: 71. 1953). The type locality is Island Lake [Livingston Co.], not Orchard Lake [Oakland Co.], Michigan, the type being *Farwell 1487a*.

Sporobolus vaginiflorus (Torr.) Wood var. *neglectus* (Nash) Scribn.
S. vaginiflorus var. *neglectus* (Nash) Shinnery

Scribner's combination (Am. Gr. 2, U. S. D. A. Div. Agrost. Bull. 17, rev. ed., p. 170. 1901) considerably antedates the same combination by Shinnery (Rhodora 56: 29. 1954), but what started as a routine check on an apparently obvious duplication revealed a tangle of confused citations, upon which some light has already been shed by Rickett & Gilly (Bull. Torrey Bot. Club 69: 463. 1942).

Scribner used the spelling *S. vaginaeflorus*, and the first source which might lead one astray (and suggest that Shinnery's combination was indeed required) is the Gray Index card for "*Sporobolus vaginaeflorus* Vasey, not Wood." First of all, the reference on this card to Vasey in Watson & Coulter (Man., ed. 6, p. 645. 1889) is later than Vasey, Cat. Gr. U. S., p. 45 (1885). Secondly, there is no justification for the assertion "Vasey, not Wood." Vasey (1885) cited "(*Vilfa, Torr.*)" — which is more of a basionym than one might have expected, or than was required as of that date. I see no reason to question that Vasey's *Sporobolus vaginaeflorus* is based on *Vilfa vaginiflora* Torr. (in Gray, N. Am. Gram. & Cyp. 1: 3. 1834). Rickett & Gilly (loc. cit.) have pointed out that Torrey later used the spelling *vaginaeflora* (Fl. N. Y. 2: 438. 1843). These are merely orthographic variants, and the present Code (Rec. 73Gd) favors the first spelling as the correct form. The combination by Wood (Class-book, ed. 1860, p. 775) antedates Vasey's and has the same basionym ("*vaginaeflorus* Torr."). If *S. vaginaeflorus* Wood and *S. vaginaeflorus* Vasey are indeed the same, Scribner's 1901 var. *neglectus* is correct with the former specific combina-

tion, for those who do not consider *S. neglectus* a distinct species.

Sporobolus vaginiflorus (Torr.) Wood

This combination, as noted above, is based on *Vilfa vaginiflora* Torr. (in Gray, Gram. & Cyp. 1: 3. 1834). This is often cited "Torr. ex Gray," but a study of the situation suggests that this is not the case and, moreover, that the type locality is generally given erroneously. The printed label with Gram. & Cyp. 1: 3 reads as follows:

3. *Vilfa vaginiflora*. Torrey, *Synop. Flora, ined.*

Agrostis Virginia. Muhl. *Gram.* p. 74, Torrey, *Flora*, v. 1, p. 89, non Elliott et Auct.

HAB. — Dry barren fields, New-Jersey.

What is being proposed is a nomen novum for *Agrostis virginica* sensu Muhlenberg (and, later, Torrey). The true *A. virginica* L. [= *Sporobolus virginicus* (L.) Kunth] occurs (or occurred) from southeastern Virginia and North Carolina along the coast to Texas (and southward). The more northern plant, previously confused with it, required a new name. This was proposed by Torrey in manuscript and published by Gray, the publication validated by reference to a previously published description [Muhlenberg (1817) antedates Torrey (1824) and is cited first].

If a description had been required, and had been provided by Gray for Torrey's name, the citation would be "Torrey ex Gray." Since no description was required, Torrey's recognition of the need for a new name presumably required no further work on the part of Gray, and "Torrey in Gray" is an acceptable citation (as it would be assumed for a new combination, for which a description is also not required; cf. Voss, *Taxon* 14: 154-160, esp. p. 158. 1965).

Since the new name was validated by reference to a previous description, the New Jersey collection of Gray's Gram. & Cyp. has no relevance to the selection of a type, which would be the same as that for the plant previously described under the mistaken identity (Art. 7, Note 4). Muhlenberg (p. 75) stated: "Habitat in aridis, floret Sept. Penns. Carolina, Georgia." Since Pennsylvania plants would be personally familiar to him and would undoubtedly be *vagini-*

flora rather than true *virginica*, the type locality would more likely be Pennsylvania than the Carolinas or Georgia. It would in any event not be New Jersey, a state not included in the description.³

Trisetum spicatum (L.) Richt. var. *molle* (Kunth) Beal

Trisetum spicatum var. *maidenii* (Gandoger) Fernald

As is clear from the recent treatment of the complex by Hultén (Sv. Bot. Tidskr. 53: 203-228. 1959), the wide-ranging *Trisetum spicatum* is taxonomically complicated. In Gray's Manual, ed. 8, Fernald adopts the varietal treatment proposed by him earlier (Rhodora 18: 195-198. 1916). I do not at this time intend to imply that this treatment (including the varieties named above) is necessarily the most helpful, but want merely to call attention to necessary corrections in citation for two of Fernald's three varieties (the third, var. *pilosiglume*, was described as new by him).

The Rhodora treatment of *T. spicatum* var. *molle* (Michx.) Piper was corrected to var. *molle* (Michx.) Beal in the Manual (p. 145). However, the basionym is incorrectly attributed to Michaux, for Michaux's *Avena mollis* was (as is clear, e.g., from the synonymy in Man. Gr., rev. ed., p. 977. 1951; in Hultén, op. cit.; and in Chase & Niles, Ind. Gr. Sp., 1962) illegitimate when published, being a homonym of two earlier names.

Trisetum molle of Kunth (Rév. Gram. 1: 101. 1829), based on *A. mollis* Michx., is therefore, under Art. 72, treated as new. Since Beal (Gr. N. A. 2: 377. 1896) cited Kunth as well as Michaux, the authorship of the variety should be cited as var. *molle* (Kunth) Beal. Similarly, those who follow Hultén's treatment would have ssp. *molle* (Kunth) Hultén.

A further discussion of this species complex has recently been published by Löve and Löve (Univ. Colo. Stud. Ser. Biol. 17: 608. 1965), who recognize the illegitimacy of Michaux's name but neglect to observe that Kunth's name

³I am indebted to A. E. Schuyler and C. W. Laskowski, who have examined the Muhlenberg collections in the Academy of Natural Sciences of Philadelphia in an unsuccessful search for a specimen with data which might definitely determine the type locality.

(which they date from 1833 rather than 1829) is legitimate (by Art. 72) although it may be a taxonomic synonym of *Melica triflora* Bigel. and therefore may serve as a legitimate basionym for combinations in other ranks, e.g., *T. spicatum* ssp. *molle* (Kunth) Hultén or *T. triflorum* ssp. *molle* (Kunth) Löve & Löve (the latter combination, as published with Hultén as author of basionym, an example of bibliographic error of citation).

The variety *T. spicatum* var. *maidenii* (Gandoger) Fern. is based, according to the citations in *Rhodora* (op. cit.), in the Gray Index, in Hultén (op. cit.), and in Ind. Gr. Sp., on *T. subspicatum* f. *maidenii* Gandoger (Bull. Soc. Bot. France 49: 182. 1902). Whether this incorrect citation is repeatedly given as a result of independent error or uncritical copying I do not know. But the original publication of *T. subspicatum* f. *maidenii* Gandoger was three years earlier (Bull. Soc. Bot. France 46: 393. 1899). The 1902 note was merely a defense of the validity of the taxon, it having been challenged by Maiden (quoted, op. cit. 49: 72. 1902). The use of boldface type in the indices of these volumes to indicate new taxa clearly supports the intent of the 1899 publication, which was complete with Latin diagnosis, to describe a new form.

CYPERACEAE

Carex

One of the most brutal products of Fernald's acid (and usually accurate!) pen was his review (*Rhodora* 49: 49-52. 1947) of Beetle's conspectus of sections in the genus *Scirpus*. Under the title, "Unverified Bibliography of *Scirpus*," Fernald called attention to a number of supposed sectional names which were not published as sections by the authors to whom Beetle attributed them. It is, therefore, not a little surprising to find in Fernald's own edition of Gray's Manual (1950) 58 sections recognized in the genus *Carex*, most of which are subject to the same criticisms previously leveled at Beetle's *Scirpus* sections.

I will not take the space here to itemize the several supposed sectional names in *Carex* which I have checked and

found not to have been validly published in that rank or, if so published, not by the author to whom ascribed in the Manual. Since such names are not in the usual indexes, and only partial synonymies appear in monographs, the work of verifying all of them is a task of greater magnitude than I have the time or competence to undertake when it is not required. The simple solution is to refer to the traditional names in *Carex* as merely names of convenient groups, without nomenclatural standing and not designated as sections.

Even so, it would be in the spirit of the Code to change the designation of the group long known as *Acutae* to *Carex*, since it is the group which includes *C. acuta* L., the type species of the genus. (This change would be required, under Art. 22, in the rank of section.)

Carex bebbii (Bailey) Fern.

This name is usually attributed to Olney (Car. Bor.-Am. 2: 12. 1871), but as is clear from Mackenzie (N. Am. Fl. 18: 147. 1931), the first valid publication of the epithet was as *C. tribuloides* var. *bebbii* Bailey (Mem. Torrey Bot. Club 1: 55. 1889). The combination in specific rank was made (apparently more or less inadvertently) by Fernald (Proc. Am. Acad. 37 [= Contr. Gray Herb. 22]: 478. 1902,) who also pointed out that Olney's name was a nomen nudum. Mackenzie (op. cit., p. 148) observed that the few words by Bailey earlier (Bot. Gaz. 10: 379. 1885) "can scarcely be regarded as a publication of the name"; regardless of the number of words, Bailey at that point considered *C. bebbii* to be a synonym of either *C. lagopodioides* or *C. scoparia* — in any event, the name is there only in synonymy and hence without nomenclatural standing.

Carex communis Bailey f. *gynandra* (Farwell) E. G. Voss, *comb. nov.*

C. communis var. *gynandra* Farwell, Am. Midl. Nat. 12: 52. 1930.

It is doubtful whether taxa such as this merit recognition even in the rank of form, but the above combination is made for consistency with, e.g., *C. pensylvanica* f. *androgyna* F. J. Hermann.

Carex houghtoniana Dewey

C. houghtonii Torrey

As was pointed out by Butters and Abbe (Rhodora 55:

134. 1953) and Rittenhouse and Voss (Mich. Bot. 1: 66. 1962), *C. houghtoniana* Torrey ex Dewey (Am. Jour. Sci. 30: 63. 1836) is validly published and there is no sanction in the Code for Torrey's emendation to *C. houghtonii* (Ann. Lyc. Nat. Hist. N. Y. 3: 413. 1836).

Carex hystericina Willd.

The original spelling was *C. hystericina* Muhl. ex Willd. (Sp. Pl., ed. 4, 4(1): 282. 1805) and in the absence of any evidence that Willdenow committed an unintentional orthographic error, emendation to *C. hystericina* is unjustified — as in the previous instance.

Carex lasiocarpa Ehrh. var. *latifolia* (Boeckl.) Gilly

C. lasiocarpa var. *latifolia* (Boeckl.) Gleason

C. lanuginosa Michx.

Although I prefer to recognize *C. lanuginosa* as a good species, it is perhaps worth noting that the combination by Gleason (Phytologia 4: 22. 1952) used in the Ill. Fl. (1: 349. 1952) is quite unnecessary, having been made six years previously by Gilly (Iowa St. Coll. Jour. Sci. 21: 125. 1946), with good bibliography. Gleason's combination is therefore properly not included in the Gray Index.

Carex leptalea Wahl. var. *harperi* (Fern.) Weathb. & Grise.

C. leptalea ssp. *harperi* (Fern.) Stone

The varietal combination is usually attributed to Stone (Pl. So. N. J., p. 305. 1912), whose work clearly indicates that his trinomials were intended to represent subspecies (cf., e.g., pp. 35 & 119). The first use of the epithet in varietal rank was apparently by Weatherby & Griscom (Rhodora 36: 39. 1934). Stone's subspecific combination is given as an undesignated trinomial in the Gray Index. The unnecessary "comb. nov." as subspecies by Calder and Taylor (Canad. Jour. Bot. 43: 1391. 1965), based on "var." *harperi*, presumably resulted from failure to examine Stone's publication carefully.

Carex livida (Wahl.) Willd. var. *radicaulis* Paine

C. livida var. *grayana* (Dew.) Fern.

In publishing var. *grayana*, Fernald (Rhodora 28: 8. 1926) stated that to take up Paine's name for "a very exceptional departure" would "lead only to confusion." Unfortunately, the Code makes no allowance for exclusion of a

name based on an unusual specimen if it is included in a taxon as circumscribed, and hence the varietal name of Paine (Rep. N. Y. St. Cab. 18: 159. 1865) has priority over Fernald's superfluous name.

Carex rugosperma Mack. var. *tonsa* (Fernald) E. G. Voss, *comb. nov.*
C. umbellata Willd. var. *tonsa* Fern. Proc. Am. Acad. 37[= Contr. Gray Herb. 22]: 507. 1902.

Sufficient intermediacy exists between *tonsa* and typical *C. rugosperma* that varietal status for the former seems desirable. Those who follow such *Carex* authorities as Mackenzie and Hermann in applying the name *C. umbellata* Willd. to what Fernald calls *C. abdita* Bickn. will require this combination with *C. rugosperma* Mack. (*C. umbellata* sensu Fern. et al., not Schk. ex Willd.).

***Eleocharis erythropoda* Steudel**

E. calva Torrey

Svenson (N. Am. Fl. 18: 525. 1957) clarified the nomenclature of this species. It is discouraging to contemplate for how many years the plant was called *E. calva* Torr. (Fl. N. Y. 2: 346. 1843), when Torrey merely mentioned certain specimens at the end of a paragraph under *E. palustris* and stated: "It may be regarded as a provisional species, under the name of *E. calva*." No more straightforward example of a "provisional name," invalid under Art. 34, can be imagined.

Since a name not validly published has no status under the Code (Art. 12) — i.e., is not even illegitimate — later valid publication of *E. calva* would not be considered a homonym. Such publication evidently did not occur, however, prior to *E. erythropoda* Steud. (Syn. Pl. Glum. II, Cyp., p. 76. 1855).

***Rhynchospora glomerata* (L.) Vahl var. *minor* Britton**

R. glomerata var. *capitellata* (Michx.) Kuek.

The combination by Kükenthal (Bot. Jahrb. 75: 98. 1950) is illegitimate; he cites *R. "capitellata"* [error for *glomerata*] var. *minor* Britt. (Trans. N. Y. Acad. 11: 89. 1892) in synonymy. Those who wish to follow his taxonomic disposition of *R. capitellata* (Michx.) Vahl should use the latter name. The spelling *Rhynchospora* is con-

served, a point apparently overlooked by some recent authors who have used *Rynchospora*.

JUNCACEAE

***Luzula multiflora* (Retz.) Lejeune**

Being reluctant to propose a new name for this well known species, I believe the Code can be interpreted to allow retention of the familiar name. The nomenclatural problems have been discussed only in part by Fernald (*Rhodora* 47: 268-271. 1945) and by Hylander (*Uppsala Univ. Årsskr.* 7: 109-110. 1945). The chief synonyms and their status may be summarized as follows:

Juncus multiflorus Retz. (*Fl. Scand. Prodr.*, ed. 2, p. 82. 1795)

[Not *J. multiflorus* Desf. (1798) (fide Hylander).]

Juncus intermedius Thuill. (*Fl. Env. Paris*, ed. 2, p. 178. 1799)

[Not *J. intermedius* Host (1805).]

Juncus multiflorus Ehrh. ex Hoffm. (*Deutschl. Fl.*, rev. ed., 1: 169. 1800) [Illeg. as homonym of Retz. (1795) if based on different type.]

Juncus erectus Pers. (*Syn.*, p. 386. 1805)

[Illeg. as superfluous under Art. 63.]

Luzula multiflora Lej. (*Fl. Env. Spa*, p. 169. 1811)

[Based on *J. multiflorus* Hoffm., with *J. intermedius* Thuill. & *J. erectus* Pers. as synonyms (fide F. J. Hermann, in litt.).⁴]

Luzula intermedia Spenner (*Fl. Friburg.* 1: 177. 1825)

[*J. multiflorus* Hoffm. cited as synonym, and also cited under β *multiflora* as is *L. multiflora* Hagenb.]

Since Hagenbach (*Tent. Fl. Basil.*, p. 336. 1821) included *J. intermedius* Thuill. in the synonymy of his *L. "multiflora Hoffm."*, we can interpret this as the assumed basionym of Spenner's *L. intermedia*. Under α *congesta*, Spenner's only other var., *J. congestus* Thuill. is cited and is obviously the basionym. In any case, Spenner's binomial is illegitimate as a homonym of *L. intermedia* Baumg. (1816) and of *Nocca* & *Balbis* (1816), both of which were (fide Hermann) based on *J. intermedius* Host. The 1816 names should be treated as new, however, under Art. 72, since the name of Host (*Icon. Descr. Gram. Austr.* 3: 65. 1805) is superfluous under Art. 63, for he cited *J. glabratus* Hoppe (*ex* Rostk., *Monogr. Gen. Junc.*, p. 27. 1801). (Host cited no publication, and was perhaps unaware that Hoppe's unpublished name had been validated by Rostkovius.)

Fernald apparently assumed that *L. multiflora* Lejeune was based on *J. multiflorus* Retzius. Unfortunately Lejeune⁴ did not cite Retzius, but Hoffman (which was based on a presumed nomen nudum of Ehrhart, as described by Fernald,⁵ and on *J. campestris* β of the Flora Lapponica). Hoffman's name, if based on a different type, is a homonym of that of Retzius; but Lejeune's name cannot be treated as new under Art. 72 since it would be nomenclaturally superfluous under Art. 63 (as he included the prior *J. intermedius* Thuill. in his synonymy). Furthermore, it would be taxonomically superfluous if not based on *J. multiflorus* Retz., if we assume the latter to be the same species as *J. multiflorus* Ehrh. ex Hoffm. (as is maintained, e.g., by Buchenau, Pflanzenr. IV (36) : 94. 1906).

Juncus multiflorus Hoffm. is a homonym of *J. multiflorus* Retz. only if it is based on a different type (Art. 64). There is, of course, the remote possibility that the two names are not based on different types and that Retzius also had a sheet No. 127 from Ehrhart's exsiccata as cited by Hoffman⁵. Unfortunately, Retzius cited no such specimen, and I am informed by B. Peterson of Lund (in litt., 1958) that no specimen named *J. multiflorus* can be found in Retzius' herbarium (nor in the Riksmuseum nor in Bergius' herbarium in Stockholm). Although no help is thus available

⁴I am indebted to Dr. F. J. Hermann for checking the Lejeune and some other references for me and for considerable helpful correspondence (1957-1959) on this problem — although he is not to be held responsible if I have reached any erroneous conclusions.

⁵Fernald expressed some doubt as to the status of a 13th decade of Ehrhart's exsiccata, and appears not to have observed that on the 7th (unnumbered) page of his Introduction, Hoffman cites "*Ehrhart's, Calamariae, Gramina et Tripetaloideae Linn. Dec. 1-14. 1789-1793. Fol.*" Additional evidence is that Buchenau, in his monograph (Bot. Jahrb. 12: 162. 1890), cites "Collect. EHRHART, Calam., 127 (!)" under *L. campestris* var. *multiflora*, although the highest number cited in the "Index collectionum" (p. 473) is 126. Ehrhart's specimens seem to have been intended to illustrate authoritatively the Linnaean species, and one cannot help noting the striking coincidence (if indeed it is that) that No. 127 is the same number as *Juncus campestris* β in the Flora Lapponica, the only other reference cited by Hoffman under *J. multiflorus*.

to make clear what Retzius had, there is the additional possibility that Hoffman was aware of the earlier name and used it without citing its author.

In view of the uncertainties here suggested, the fact that *J. multiflorus* Retz. and *J. multiflorus* Hoffm. apparently refer to the same species whether or not based on the same type, and the desirability of a stable nomenclature, the best solution seems to me to invoke Art. 33, Note 2: "Bibliographic errors of citation do not invalidate the publication of a new combination." (Cf. comment under *Echinochloa*, above.) We can accept *Luzula multiflora* (Retz.) Lej. if we treat Lejeune's citation of Hoffman rather than of Retzius as a bibliographic error. This course would also explain Lejeune's failure to base his binomial on the earlier *J. intermedius* Thuill., which he cites.

It is not clear that there is any fully satisfactory alternative other than a new name. Without laboring the point further here, suffice it to say that several other epithets which (from Index Kewensis or other sources) might be thought applicable have been checked by Hermann or me and found to be taxonomically or nomenclaturally inadmissible. If *L. multiflora* and *L. congesta* are considered conspecific, one could take up *L. congesta* (Thuill.) Lej. (op. cit., p. 168) for the species and make *multiflora* a variety or subspecies of it. [Spenner (op. cit., p. 178) was evidently the first to treat *multiflora* in varietal rank, under his *L. intermedia*; if we are, in this line of thought, rejecting Hoffman's name as a homonym of Retzius's name, then it is illegitimate and Spenner's varietal use of the epithet would be treated as new. There may even be some earlier epithet available in varietal rank.] This is not the place for a monograph of *Luzula*, and I leave the subject with attention called to the unusual nomenclatural complexities.

LILIACEAE

Hemerocallis lilio-asphodelus L.

H. flava (L.) L.

Continued use by some authors of the illegitimate *H. flava* suggests that it is not inappropriate to call attention to dis-

cussions of the case by Farwell (Am. Midl. Nat. 11: 51. 1928), Hylander (Uppsala Univ. Årsskr. 7: 112. 1945), and Dress (Baileya 3: 107-108. 1955). The original *H. lilio-asphodelus* L. must be retained for one of the two elements into which it was later divided — even if the later divider was the revered Linnaeus himself.

Muscari atlanticum Boissier & Reuter

M. racemosum Auct., non Miller, non DeCandolle

This common grape-hyacinth, which occasionally escapes from cultivation, was originally called *Hyacinthus racemosus* L. (Sp. Pl., p. 318. 1753). In 1768, Miller (Gard. Dict., ed. 8, no. 3) described a *Muscari racemosus*, which too many authors (e.g., Fernald) have assumed to be based on *H. racemosus* L. However, it is clear, from the Clusian synonym which both cite and from the common names given, that Miller was instead providing a new name for the musk-hyacinth, *H. muscari* L. (p. 317). In order to avoid the tautonym *Muscari muscari* when transferring these species into *Muscari*, Miller was perfectly correct (according to present rules) in providing a new epithet. He was free to use any epithet he wanted (provided it was not otherwise in use in *Muscari*), and it is unfortunate that he happened to select a common epithet, already in use by Linnaeus for another species which ought to have been transferred to *Muscari*.

Therefore *Muscari racemosum* Mill. (loc. cit.)⁶ applies to the species later called *M. moschatum* Willd. (Enum. Pl. Hort. Reg. Bot. Berol., p. 378. 1809), the name by which it usually appears in works on cultivated plants. Even if one should now reject *M. racemosum* Mill. as a *nomen am-*

⁶When making the transfers into *Muscari* under the binomial system (Gard. Dict., ed. 8. 1768), Miller treated the generic name as masculine; Hylander (Uppsala Univ. Årsskr. 7: 38. 1945) has therefore termed incorrect the usual usage as neuter. However, valid publication of the genus dates from the 4th abridged edition of Miller's Gardeners Dictionary (1754), wherein the genus was consistently treated as neuter. The fact that Miller changed his mind 14 years later does not alter the original gender, which followed that of Tournefort, and which has been followed by Medicus, DeCandolle, and Turrill (in the works cited here), as well as others.

biguum under Art. 69, the plant cannot be called *M. moschatum*, since the latter name is distinctly antedated by *M. muscarimi* Medicus (Ann. Bot. Usteri 2: 15. 1791), a name clearly proposed as a substitute for *Hyacinthus muscari* L. in a paper on the Linnaean genus *Hyacinthus*. Medicus cites not only the Linnaean name (transfer of which would have created a tautonym) but also the Clusian synonym. (Cf. Turrill, Bot. Mag. 167, sub t. 124. 1950). [Another alternative, for those who prefer small genera, is *Muscarimia muscari* (L.) A. Losink., Fl. URSS 4: 411. 1935.]

The combination "*Muscari racemosum* (L.) DC.," which is often seen, is of course a homonym of *M. racemosum* Mill., and therefore illegitimate even if it were based on the Linnaean name. However, DeCandolle (in Lam. & DC., Fl. Franç., ed. 3, 3: 208. 1805) cited first, *M. racemosum* Mill., and second, *H. racemosus* L. "Spec. 455" [a reference to the 2nd (or 3rd) ed. of Sp. Pl.]. Thus, DeCandolle was evidently confused and thought that Miller's name was based on *H. racemosus* L.; that he did not equate Miller's name with *H. muscari* (as he should have) is clear from his citation (op. cit., p. 207) of the latter under his *M. ambrosiaceum* Moench, the odoriferous species (our "musk-hyacinth").⁷

Since the name *Muscari racemosum* is unavailable for the common grape-hyacinth, a taxonomic judgment must be made as to what other name, if any, in the literature is applicable to this species. Pending the monographic work which this genus needs, the appropriate name seems to be *M. atlanticum* Boiss. & Reut. (Pugill. Pl. Nov., p. 114. 1852). This name was taken up by Dandy (List Brit. Vasc. Pl., p. 599. 1958), who has been followed by Clapham, Tutin, & Warburg (Fl. Brit. Isles, ed. 2, p. 975. 1962).

Polygonatum commutatum (Schult. f.) A. Dietr.

P. canaliculatum Auct., non *Convallaria canaliculata* Muhl. ex Willd.

This synonymy was worked out by R. Ownbey (Ann. Missouri Bot. Gard. 31: 393 & 403. 1944) and I am unaware

⁷I am greatly indebted to W. T. Stearn of the British Museum for his help in clarifying this problem (in litt., 1961).

of any reason not to accept her conclusions, although Fernald did not do so in *Man.*, ed. 8.

Smilax ecirrata (Kunth) Watson

The usual spelling *S. ecirrhata* is given as a "bad example" of word construction by R. W. Brown (*Composition of Scientific Words*, p. 245 [& cf. p. 4]. 1954). It happens, however, that this is a bad example of a bad example. The original spelling was correct [*Copromanthus herbaceus* β *ecirratus* Engelm. ex Kunth, *Enumerat.* 5: 266. 1850] and there was no reason for Watson in assuming specific rank (*Man.*, ed. 6, p. 520. 1889) or anyone else to adopt an inferior spelling.

IRIDACEAE

Sisyrinchium angustifolium Mill.

The nomenclature of *Sisyrinchium*, especially revolving around this name, is no less complicated than its taxonomy. Both have been carefully investigated by Dr. Daniel B. Ward, whose results are not yet published, so it is premature here to concur in his work, which has seemed sensible insofar as I have been aware of it. Thus postponing this large problem, I confine myself to a comment concerning a Michigan species:

Sisyrinchium farwellii Bicknell

This is noted by Fernald (*Man.*, ed. 8, p. 458. 1950) as "scarcely separable" from *S. arenicola* Bickn. (*Bull. Torrey Bot. Club* 26: 496. 1899). One fears that the reason for Fernald's reluctance to state directly that they are the same is that *S. farwellii* (*Bull. Torrey Bot. Club* 26: 298. 1899) has a few months' priority and hence the familiar name for the eastern coastal species would have to be abandoned. In any event, Michigan plants (only the distinctive type collection is known) must be called *S. farwellii*, whether or not the coastal ones are different. *Sisyrinchium farwellii* differs in several important characters from *S. atlanticum* Bickn., of which for some reason Alexander (in Gleason, *Ill. Fl.*, 1: 452. 1952) considered it only a form.

ORCHIDACEAE

Calopogon tuberosus (L.) BSP.

C. pulchellus (Salisb.) R. Brown

Manuals continue to use Brown's illegitimate name in spite of a clear elaboration of the case by Mackenzie (*Rhodora* 27: 193-196. 1925), whose opinion is apparently accepted by Rickett & Stafleu (*Taxon* 8: 257. 1959).

Corallorhiza trifida Chatelain

In 1907, Rendle and Britten (*Jour. Bot.* 45: 442) called attention to the fact that the earliest valid publication of the generic name *Corallorhiza* was by J. J. Chatelain (*Specimen Inaug. Corall.*, 1760). This fact was reiterated by Fernald in 1946 (*Rhodora* 48: 193). In 1909, Ames (*Rhodora* 11: 106) made no mention of the correct citation of the generic name but did state (as had Rendle & Britten, whom he did not credit with the discovery) that since an inadmissible tautonym would result from the transfer of *Ophrys corallorhiza* L. to this genus, the valid name for the plant previously known as *C. innata* R. Br. (1813) must be *C. trifida* Chat. (1760).

In the meantime, apparently no one has questioned taking up *C. trifida*. The generic name may, of course, validly date from Chatelain's work even if his specific names are for any reason to be rejected.

In his little 15-page paper, Chatelain accepted two species of *Corallorhiza*. "Species Prima" is "*Corallorhiza nectararii labio trifido*" with the marginal epithet "Trifida," as reprinted by Ames (*loc. cit.*). "Species Secunda," which has not been mentioned by those who have called attention to Chatelain's previously neglected paper, is "*Corallorhiza nectararii labio integro*," with no trivial epithet indicated in the margin. *C. rupprii* Hall. is cited as a [pre-Linnaean] synonym. Among the synonyms cited for *C. nectararii labio trifido* is the Linnaean polynomial (but not the Linnaean epithet, under *Ophrys*, of *Corallorhiza*).

From this evidence, and knowing the reluctance of Haller (for whom Chatelain's publication was a doctoral dissertation) to accept binomial nomenclature wholeheartedly, we might seriously wonder whether this may not be a work

“in which the Linnaean system of binary nomenclature for species was not consistently employed” (Art. 23). One species has a binomial; the other does not.

The consequences of such a conclusion can probably be avoided. Either we can consider that Chatelain in his “Species Secunda” was validating *C. rupprii* of Haller, or we can assume that a trivial epithet *integra* was accidentally omitted from the margin. The latter suggestion is supported by the first sentence of his concluding paragraph: “Ex descriptione data Corallorhizae integrae, à trifida discrepare videtur, in eo, quod nectarium labium integrum sit.” Apparently he did intend that his second species be known as *Corallorhiza integra*.

This second species is presumably not taxonomically distinct from *C. trifida* as now understood and generally considered to be the only European representative of the genus. So whatever Chatelain intended to call it, the rule (Art. 57) of the “first reviser” (Rendle & Britten?) would cause us to accept *C. trifida* over the other name of the same date. No name *C. integra*, nor any other epithet of Chatelain’s except *trifida*, has been listed in the Index Kewensis, which finally caught up with *trifida* in the Fifth Supplement, and which still (11th suppl.) credits the genus (spelled “Corallorrhiza” to Robert Brown.

I do not propose to abandon the now familiar name *C. trifida*. But for consistency, if we assume that Chatelain did use binary nomenclature (thus validating *trifida*), his other species, even though undoubtedly a taxonomic synonym, should be properly indexed and accepted as validly published.

Cypripedium × andrewsii Fuller

Garay (Science 148: 65. 1965) has criticized the use of *C. × andrewsii* in Case’s “Orchids of the Western Great Lakes Region” (Cranbrook Inst. Sci. Bull. 48, col. pl. 2. 1964). It should be borne in mind that when our yellow lady-slippers are treated as a single species (usually with two varieties, as in Case), the hybrids, no matter of which variety, with *C. candidum* would under Art. H. 1 receive the same name: “Where binary ‘specific’ names of Latin

form are used for hybrids, all offspring of crosses between individuals of the same parent species receive the same binary name. . . . When polymorphic parental species are involved and if infraspecific taxa are recognized in them, greater precision may be achieved by the use of formulae than by giving the hybrids 'specific' names."

Without admitting that the Code adequately or clearly treats all problems in the nomenclature of hybrids, there would seem to be a good case for accepting *C. × andrewsii* Fuller (Rhodora 34: 100. June 3, 1932) over the slightly later *C. × favillianum* Curtis (Rhodora 34: 242. Dec. 14, 1932). Into the same synonymy would fall the backcross *C. × landonii* Garay (Canad. Jour. Bot. 31: 660. 1953). (Cf. Boivin, Nat. Canad. 87: 32. 1960.)

Orchis rotundifolia Pursh f. *lineata* (Mousley) E. G. Voss, *comb. nov.*
O. rotundifolia var. *lineata* Mousley, Canad. Field-Nat. 55: 65. 1941.

Only formal rank seems appropriate for this striking variant, which was originally described from Alberta and later discovered in Ontario.⁸ The albino form of this species was named *O. rotundifolia* f. *beckettii* Boivin (Nat. Canad. 87: 42. 1960); since it is named for the industrious and amiable Mrs. Eva Beckett (formerly of Churchill, now of Fort William), the spelling should be corrected to *beckettae* (Art. 73, Note 3 & Rec. 73C).

Spiranthes lacera (Raf.) Raf.

In 1946 Fernald pointed out (Rhodora 48: 6 et sqq.) that *S. lacera* (Raf.) Raf. (based on *Neottia lacera* Raf., 1818) would have priority over *S. gracilis* (Bigel.) Beck (based on *Neottia gracilis* Bigel., 1824). However, Fernald found

⁸Elliott (Rhodora 62: 174. 1960) reported this form from Sibley Provincial Park, on the north side of Lake Superior. Unaware of his discovery, on July 22, 1961, Robert L. Jeanne and I discovered this form to be local in a black spruce — sphagnum bog at the head of the north arm of Fork Bay, at the southeast end of the Sibley Peninsula. The lip was white, streaked longitudinally with bold purplish lines becoming confluent. The normal form with spotted lip was also in the area. Specimens of f. *lineata* (Voss 10203) have been distributed to the herbaria of the University of Michigan, University of Toronto, the author, and Sibley Provincial Park.

it unnecessary completely to supplant *S. gracilis*, determining that it applies to a predominantly southern species whereas *S. lacera* applies to a more northern species not previously distinguished by most authors.

Most subsequent authors have also not been able to distinguish the two (e.g., Correll, Nat. Orch. N. A., p. 197. 1950; Gleason, Ill. Fl. 1: 470. 1952). However, they have neglected Fernald's original point that *S. lacera* has priority over *S. gracilis*. Our northern plant, in any event, is to be called *S. lacera* (Raf.) Raf. Those who find the southern population different may call it *S. gracilis* (Bigel.) Beck; otherwise, they must call it, too, *S. lacera*.

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